HYBOND

Soft Touch™

MODEL 616B-003

DIGITAL ULTRASONIC PEG BONDER

For 0.5 - 2.0 mil (12.5 - 50 micron) dia. insulated wire, 0.5 - 3.0 mil (12.5 - 75 micron) dia. bare wire and up to 1 x 20 mil (25 x 500 micron) gold or aluminum ribbon/gold plated copper leads

STANDARD FEATURES:

- HYBOND *Soft Touch*[tm] bond force system.
- Servo-motor vertical (Z axis) control.
- 0.75in (19mm) vertical bonding window.
- Variable height bonding within 0.75in (19mm)
- Search height adjustable in 0.001in (25um) increments.
- Hi/Lo U/S power selector (PLL generator).
- Digital parameter adjustment in actual units (watts, milliseconds and grams).
- Storage for up to ten bond schedules in non-volatile memory.
- Wiring for 120VAC 50/60 Hz @ 10A max.
- Dual bond counters record number of bonds performed by bonding tool and total bonds.
- Dual footswitch control for bond head vertical (up and down) movement.
- Bond head vertical movement can be controlled in fast or slow speeds on manual mode.
- Bond level sensor system stops Z axis movement upon contact with bond surface and activates bond cycle.
- Deep access when using 0.750 in. wedge**.**

HYBOND's Model 616B-003 digital ultrasonic single channel peg bonder is designed for ultrasonic bonding of interconnects in applications that do not require the bonder to feed wire. Applications include "tacking" tuning ribbons, insulated wire bonding, flex on flex bonding, pin tab bonding, mesh bonding and ball coining. When fitted with a HYBOND motorized programmable X-Y work platform, the 616B-003 becomes a semiautomatic machine for medium to high volume production.

Partial List of Available Options:

- **OP-06S7E:** Leica S7E Zoom Stereo Microscope.
- **OP-06B:** Nikon SMZ745 Microscope.
- **OP-08B:** Dual Fiber Optic Illuminator.
- **OP-08R1-LED:** White LED Ring Illuminator.
- **OP-12:** Provisions for 240VAC 50/60 Hz operation.
- **OP-47:** Beam Lead Diode Bonding option.
- **OP-100:** Base Plate & Post for mounting the bond head (when used as a tabletop unit as shown in the photograph).
- **OP-101:** Microscope Boom Arm & Clamping Block for mounting the microscope to the post (see photograph).
- **Work Stages:** Heated & Unheated available.
- **PT-X.X:** Peg Tool as ordered per application.

Model 616B-003 Specifications:

Ultrasonic (U/S) System:	PLL self-tuning 62.5KHz (nominal) system (±2.5KHz).
U/S Power Range:	0-0.2 Watt on low range and 0-4 Watts on high range.
Bond Time Range:	0mSec. to 900mSec.
Bond Force Range:	12gr. to 300gr.
Bondable Wire Diameter:	0.7 to 3.0mil (18 to 76µm), may vary by material.
Bond Head Movement:	True linear vertical (Z) motorized movement with fast and slow speeds in manual mode or search height pause in auto mode.
Bond Actuation:	Bond height sensor activates bond cycle upon contact with bond surface.
Input Power Requirements:	120VAC 50/60Hz @ 10A (max.) is standard, order OP-12 for 240VAC 50/60Hz.
Min. Bench Space Required:	Width: 14in., Depth: 31in., Height 17in. (36cm x 79cm x 43cm).
Unit Weight:	70 lbs. (31,8Kg).
Shipping Weight:	150 lbs. (68,2Kg), shipping weight varies with options ordered.
Industry Standards:	CE.

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